CLAIMS

WHAT IS CLAIMED IS:

1.   A method for converting a signal, comprising:

receiving, by a pre-decoder, at least one electronic input signal from a group consisting of:

        video;

        audio;

        text; and

        multi-media;

identifying, by the pre-decoder, the received input signal;

transmitting, by the pre-decoder, the identifier to at least one of a following decoder, based on the identifier, from a group consisting of:

        the first decoder;

        another decoder; and

        at least one encoder;

wherein at least one of a following coupling occurs from a group consisting of:

        the decoder and the pre-decoder operably coupled to each other; and

        the pre-decoder and the encoder operably coupled to each other;

wherein the other decoder is operably coupled to the pre-decoder;

transforming, by the identified decoder, the received input signal into a first unencoded digital signal;

transmitting the first unencoded digital signal to the at least one encoder, based on the identifier, by at least one of a following decoder from a group consisting of:

        the pre-decoder; and

the identified decoder;

transmitting a second unencoded digital signal, by the pre-decoder, to at least one of a

following encoder from a group consisting of:

the at least one encoder; and

another one of the at least one encoder; and

converting, by the encoder, the first unencoded digital signal and the second unencoded

digital signal.

2.   The method of claim 1 further comprising, if a final decoder is not available,

transmitting, by the pre-decoder, the input signal to at least one of a following element from a

group consisting of:

a default encoder; and

a default decoder.

3.   The method of claim 1 further comprising assessing, by the pre-decoder, processing

requirements of at least one of a following element from a group consisting of:

the first decoder;

the other decoder;

the at least one encoder;

the decoder;

the encoder;

the identified decoder; and

the another one of the at least one encoder.

4.   The method of claim 3, further comprising deciding, by the pre-decoder, whether the received input signal is transmittable, based on the processing requirements, to at least one of a following element from a group consisting of:

the first decoder;

the other decoder;

the at least one encoder;

the decoder;

the encoder;

the identified decoder; and

the another one of the at least one encoder.

5.   The method of claim 4, further comprising, if the received input signal is transmittable, transmitting, by the pre-decoder, the received input signal to at least one of a following element from a group consisting of:

the first decoder;

the other decoder;

the at least one encoder;

the decoder;

the encoder;

the identified decoder; and

the another one of the at least one encoder.

6.   The method of claim 4, further comprising, if the received input signal is not transmittable, storing, by the pre-decoder, the received input signal to a first memory.

7.   The method of claim 6, further comprising, assigning, by the pre-decoder, a higher priority to the stored received input signal than a new received input signal.

8.   The method of claim 7, further comprising, transmitting, by the pre-decoder, the stored received input signal before the new received input signal to at least one of a following element from a group consisting of:

the first decoder;

the other decoder;

the at least one encoder;

the decoder;

the encoder;

the identified decoder; and

the another one of the at least one encoder.

9.   The method of claim 8, further comprising storing the unencoded signal, by the identified decoder, in a second memory.

10.   The method of claim 8, further comprising transmitting the unencoded signal, by the identified decoder, to an encoder based on the identifier, of the at least one encoder that is in at least one of a following state:

available; and

able to process the unencoded signal.

11.   The method of claim 10, further comprising converting, by the encoder based on the identifier, the unencoded signal to an encoded signal.

12.   The method of claim 11, further comprising storing the encoded signal in a third memory.

13.   The method of claim 12, further comprising transmitting the encoded signal from the third memory to a collector.

14.   The method of claim 13, further comprising transmitting, by the collector, the encoded signal to a transmitter.

15.   The method of claim 13, further comprising storing, by the collector, the encoded signal in a fourth memory.

16.   The method of claim 15, further comprising accessing, by a pre-module, the stored encoded signal from the fourth memory.

17.   The method of claim 16, further comprising transmitting, by the pre-module the accessed encoded signal to a fifth memory.

18. The method of claim 17, wherein the accessed encoded signal is an un-synchronized encoded signal.

19. The method of claim 16, further comprising transmitting indexing properties from an index information module to the pre-module.

20. The method of claim 19 further comprising transmitting an un-synchronized encoded signal with indexing properties to the fifth memory.

21. The method of claim 16, further comprising determining, by the pre-module, a storage scheme for the stored encoded signal in the fifth memory based on the identifier.

22. The method of claim 20, further comprising determining, by the pre-module, a storage scheme for the un-synchronized encoded signal with indexing properties in the fifth memory.

23. The method of claim 17, further comprising receiving at least one of a following signal at a logical synchronization module from a group consisting of:

    a user request; and

    a live broadcast request.

24.   The method of claim 23, wherein if the user request is received, accessing, by the logical synchronization module from the fifth memory at least one of the following signal from a group consisting of:

        the un-synchronized encoded signal; and

        the un-synchronized encoded signal with indexing properties;

        wherein a portion the un-synchronized encoded signal with indexing properties is accessed based on the indexing properties.

25.   The method of claim 23, wherein if the live broadcast request is received, accessing, by the logical synchronization module, the stored encoded signal from the fourth memory.

26.   The method of claim 24 further comprising synchronizing the at least one of the following signal.

27.   The method of claim 26 further comprising at least one of a following action from a group consisting of:

        transmitting the at least one of the following synchronized signal; and

        encrypting the at least one of the following synchronized signal.

28.   The method of claim 25 further comprising synchronizing the stored encoded signal.

29.   The method of claim 28 further comprising at least one of a following action from a group consisting of:

transmitting the synchronized encoded signal; and

encrypting the synchronized encoded signal.

30.   A method for converting a signal, comprising:

receiving an un-encoded signal at a pre-quantization module;

transforming the un-encoded signal into a pre-transformed signal at the pre-quantization module;

storing the pre-transformed signal in a first memory;

transmitting the stored pre-transformed signal to an energy separation module by the pre-quantization module;

separating the transmitted pre-transformed signal into at least one of a following signal from a group consisting of:

a significant energy signal adapted to be stored in a second memory operably coupled to a quantization module; and

an insignificant energy signal adapted to be stored in a third memory operably coupled to the quantization module;

transmitting the energy signals by the energy separation module to the quantization module;

receiving encoding parameters by the pre-quantization module;

storing the encoding parameters in the first memory;

accessing the encoding parameters by the quantization module;

quantizing, by the quantization module, the energy signals based on the encoding parameters;

wherein the quantizing produces quantized energy signals;

storing the quantized significant energy signal in a fourth memory;

storing the quantized insignificant energy signal in a fifth memory;

transmitting, by the quantization module, the stored quantized significant energy signal and the stored quantized insignificant energy signal, to an entropy encoder;

encoding the signals;

transmitting the signals to a signal collector; and

storing the signals, by the signal collector, to a sixth memory.

31. A method for converting a signal, comprising:

receiving, by a pre-decoder, at least one input signal;

identifying, by the pre-decoder, the received input signal;

transmitting, by the pre-decoder, the identifier to at least one of a following module, based on the identifier, from a group consisting of:

at least one decoder; and

a first encoder;

transforming, by the identified decoder, the received input signal into a first un-encoded signal;

transmitting the first un-encoded signal to at least one encoder, based on the identifier, by the at least one decoder;

transmitting a second un-encoded signal, by the pre-decoder, to the first encoder; and

converting, by the at least one encoder, the first un-encoded signal into a first encoded signal; and

converting, by the first encoder, the second un-encoded signal, into a second encoded signal.

32. A system adapted to transmit a signal, comprising:

a receiver adapted to receive a first signal;

a resolution module adapted to produce an un-coded signal based on the first signal, wherein the receiver is coupled to the resolution module;

a transform adapted to produce pulses and index segments based on the un-coded signal, wherein the transform is coupled to the resolution module;

a collection module adapted to receive and store the pulses and the index segments; and

a transmitter adapted to transmit at least one of a following data from a group consisting of:

the produced pulses and index segments; and

the stored pulses and index segments.

33. The system of claim 32, wherein the data is transmitted to another receiver.

34. The system of claim 32 further comprising a second receiver adapted to receive a second signal, wherein the second receiver is coupled to the collection module.

35. The system of claim 34 further comprising a memory coupled to the collection module.

36. The system of claim 35, wherein the collection module is adapted to query the memory based on the second signal.

37. The system of claim 36, wherein the collection module transmits the stored pulses and index segments to the transmitter based on results of the query.

38. The system of claim 32, wherein the resolution module is a 1 to N resolution module.

39. The system of claim 32, wherein the transform is at least one of a following transform from a group consisting of:

    reflective array;

    discrete cosine;

    wavelet;

    fractal; and

    any other signal processing transform.

40. The system of claim 32, wherein the first signal comprises at least one signal from a group consisting of:

    the first signal as a whole;

    a portion of the first signal; and

    a plurality of signals including the first signal.

41.   The system of claim 34, wherein the second signal comprises at least one signal from a group consisting of:

the second signal as a whole;

a portion of the second signal; and

a plurality of signals including the second signal.

42.   A system adapted to transmit a signal, comprising:

a receiver adapted to receive a first signal and produce a buffered signal;

a transform adapted to produce pulses and index segments based on the buffered signal, wherein the transform is coupled to the receiver;

a collection module adapted to receive and store the pulses and the index segments; and

a transmitter adapted to transmit at least one of a following data from a group consisting of:

the produced pulses and index segments; and

the stored pulses and index segments.

43.   A system adapted to transmit a signal, comprising:

a receiver adapted to receive a first signal;

a resolution module adapted to produce an un-coded signal based on the first signal, wherein the receiver is coupled to the resolution module;

a transform adapted to produce pulses and index segments based on the un-coded signal, wherein the transform is coupled to the resolution module;

a collection module adapted to receive and store the pulses and the index segments;

a transmitter adapted to transmit at least one of a following data from a group consisting

of:

the produced pulses and index segments; and

the stored pulses and index segments; and

at least one memory coupled to at least one of a following element from a group consisting of:

the receiver;

the resolution module;

the transform;

the collection module; and

the transmitter.

44. A pre-quantization module, comprising:

means for filtering at least one of a following first signal from a group comprising of:

an un-encoded signal; and

an encoded signal;

means for filtering a second filtered signal, wherein the second filtered signal is related to the first filtered signal;

means for filtering a third filtered signal, wherein the third filtered signal is related to the second filtered signal; and

means for transforming the third filtered signal, wherein the transformed third filtered signal is output from the pre-quantization module.

45.   The pre-quantization module of claim 44, wherein the means for filtering the first signal comprises bandpass filtration, wherein the bandpass filtration produces the first filtered signal.

46.   The pre-quantization module of claim 44, wherein the means for filtering the second filtered signal comprises edge artifact filtration.

47.   The pre-quantization module of claim 44, wherein the means for filtering the third filtered signal comprises anti-aliasing filtration.

48.   The pre-quantization module of claim 44, wherein the means for transforming the third filtered signal comprises clarification transformation.

49.   An energy separation module, comprising:

means for receiving a pre-transform signal;

means for buffering the pre-transform signal; and

means for receiving the buffered signal and dividing the buffered signal into at least one energy separated pulse band.

50.   The energy separation module of claim 49, wherein the at least one energy separated pulse band is at least one of a following band from a group consisting of:

a significant pulse band; and

an insignificant pulse band.

51.   The energy separation module of claim 49, wherein the means for buffering further comprises means for outputting the pre-transform signal to a memory until the pre-transform signal is entirely received.

52.   The energy separation module of claim 51, wherein the means for buffering further comprises means for outputting the entirely received buffered signal from the memory.

53.   A shear energy module, comprising:

    means for receiving at least one of a following pulse band from a group comprising of:

        a significant pulse band; and

        an insignificant pulse band;

    means for averaging amplitudes of the pulse band;

    means for transforming the averaged pulse into a phase coded pulse; and

    means for reflecting the phase coded pulse onto itself.

54.   The shear energy module of claim 53 further comprising means for receiving the reflected phase coded pulse.

55.   The shear energy module of claim 54 further comprising means for:

    analyzing the received reflected phase coded pulse; and

    realigning the received reflected phase coded pulse based on the analyzing.

56. The shear energy module of claim 55 further comprising means for outputting the realigned reflected phase coded pulse.

57. The shear energy module of claim 53, wherein the means for reflecting comprises means for separating at least one high pass and low pass filter coefficient.

58. The shear energy module of claim 53 further comprising means for buffering at least a portion of the reflected phase coded pulse until the reflected phase coded pulse is entirely received.

59. The energy separation module of claim 58 further comprising means for outputting the entirely received reflected phase coded pulse.

60. A computer readable medium comprising instructions for:

   outputting a signal request;

   transmitting the signal request;

   receiving an input waveform and error enhancing signal based on the transmitted signal request;

   transforming the received input waveform and error enhancing signal from a phase coded pulse to a presentation signal; and

   transmitting the presentation signal based on the transformed input waveform and error enhancing signal.

61.   The computer readable medium of claim 60, wherein the presentation signal is transmitted to a target device.

62.   A computer readable medium comprising instructions for:

receiving an output waveform and error enhancement signal;

producing enhanced coefficient trees based on the received output waveform and error enhancement signal;

un-aligning the enhanced coefficient trees; and

producing a transformed pulse based on the un-aligned enhanced coefficient trees.

63.   The computer readable medium of claim 62 comprising instructions for recovering the transformed pulse.

64.   The computer readable medium of claim 63 comprising instructions for producing at least one pulse based on the recovered transformed pulse.

65.   The computer readable medium of claim 64 comprising instructions for combining the at least one pulse.

66.   The computer readable medium of claim 65 comprising instructions for producing a standing pulse based on the combined at least one pulse.

67. The computer readable medium of claim 66 comprising instructions for reversing the standing pulse.

68. The computer readable medium of claim 67 comprising instructions for producing a reconstructed signal based on the reversed standing pulse.

69. The computer readable medium of claim 68 further comprising transmitting the reconstructed signal to at least one of a following element:

an output module; and

a target device.

70. The computer readable medium of claim 69 comprising instructions for enhancing the reconstructed signal.

71. The computer readable medium of claim 70 comprising instructions for producing a filtered signal based on the enhanced reconstructed signal.

72. The computer readable medium of claim 71 comprising instructions for increasing an intensity of at least one segment of the filtered signal

73. The computer readable medium of claim 72 comprising instructions for producing a filtered reconstructed signal based on the increased intensity.

74.   The computer readable medium of claim 62, wherein if the received output waveform and error enhancement signal is encrypted, decrypting the encrypted signal.

75.   The computer readable medium of claim 62 further comprising instructions for producing an error recovery signal based on the decrypted output waveform and error enhancement signal.

76.   The computer readable medium of claim 75 further comprising instructions for applying the error recovery signal to the un-aligned enhanced coefficient trees.

77.   The computer readable medium of claim 76 further comprising instructions for producing a transformed pulse based on the error recovery signal.

78.   The computer readable medium of claim 62 further comprising buffering at least one of a following waveform from a group consisting of:

the output waveform and error enhancement signal;

the decrypted output waveform and error enhancement signal; and

the transformed pulse.